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ABSTRACT

Reading tests can be a source of inquiry into the processes of reading, learning to read, and curricular implications. During a staff development program, teachers reviewed and analyzed various reading tests. They discovered that reading tests seem to be unequal in their concern for what is being measured; that very few tests offer explicit or operational definitions of reading comprehension; that most tests do not easily lead to the recognition of the relationship between the degrees of difficulty of a test; and that few tests take into account issues surrounding the text-dependent nature of test items as opposed to the interactive nature of reading. Guided examination of even a few of the major characteristics of one test was seen as an opportunity for teachers to consider alternative conceptualizations of the reading act, and it provided an opportunity for the teachers to increase their knowledge of the structure of what they are teaching, and why, all of which might have a considerable impact on reading instruction. The teachers concluded that the introduction of a comprehension measure with a meaning base would influence classroom curriculum, and that a more language-centered, active processing mode of instruction was desirable. (HCD)

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# USING A READING TEST TO INQUIRE ABOUT READING INSTRUCTION

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## USING A READING TEST TO INQUIRE ABOUT READING INSTRUCTION

Reading tests have many conventional, familiar uses. With varying degrees of acceptability they can, for example, be used to diagnose reading skills, determine instructional levels, estimate growth and evaluate instructional programs (Farr, 1969). What is often overlooked, however, is another potential use: reading tests can be a source of inquiry into the processes of reading, learning to read and curricular implications. While it may at first appear to be going backwards--looking at tests to see what the test developers claim to measure--rather than looking, for example, at models of reading and then judging test instruments in light of the models--there is something to be said for what might be considered a novel way of inducing teachers to examine seriously the nature of what they are trying to do when they teach children to read.

This paper deals in part with the manner in which a new reading test, the Degrees of Reading Power (DRP; The University of the State of New York, n.d.) test, was used as an instructional

focus for teachers (N=22) in two suburban school districts who were participants in a staff development program led by the authors. Rather than having these teachers first read about reading in collections such as, Theoretical Models and Processes of Reading (Singer and Ruddell, 1976), they were shown sample copies of a preliminary version of the DRP and asked for their reactions. Because the DRP represents a considerable departure from the norm of most widely used reading tests, teacher response quickly raised some of the major issues relating to differing views of reading and their curricular implications.

DRP Characteristics

The Degrees of Reading Power Test (DRP) has been developed to address some existing problems in the testing of comprehension performance. The DRP utilizes an operational definition of reading comprehension as the ability to use syntactic and semantic information provided by the intersentential context of prose at different levels of difficulty to complete (restore) a missing section of the message. The test employs: first, a set of response options controlled for familiarity; second, a test that is informationally adequate to determine the best correct choice and; third, that only one answer is correct. A structured cloze format was used with twelve passages of seven deletions per passage and a five choice option for each deletion. The test represents an outcome measure of students' ability to read with comprehension non-fiction prose passages that are ordered from very easy to very difficult. Replacement for the deleted word is selected from five options; these

options are controlled for difficulty across all levels of the passages. Unlike many representative reading tests, this cloze test does not measure subskills, but only generates an overall comprehension score. In so doing, the test developers acknowledge that some research evidence questions the independence of comprehension subskills.

With the recent interest in competencies and the continued concern with reading test scores (Farr, 1977), instructional staff have requested assistance in improving the teaching of comprehension skills. Since this test was introduced as a statewide assessment instrument, the potential exists for significant changes within the instructional program as well as data collection. The supporting technology was also generated which permits teachers to establish instructional groups based on the scoring pattern of their classes. Total correct scores may be converted into the traditional independent, instructional and frustration levels. In addition, readability levels (Bormuth, 1969) of both instructional materials and free reading materials, such as magazines and newspapers, have been related to test units and tables for these conversions are available for teacher use.

Because the passages on the test represent connected discourse, the intent is to tap pupils' understanding not only of intra-sentence meaning but of inter-sentence meaning as well. The test-dependent nature of test items have been carefully considered and a case can be made for the text containing the information necessary to select the correct answer.

The purpose of this paper is to describe the potential use in staff development programs for the analysis of the reading process and curriculum implications based on a review of test instruments.

Issues

After a careful, group-directed discussion focusing on the characteristics of a new test instrument, a number of important issues were raised and debated by the participants in this staff development program.

The first issue to emerge has already been stated: if the exclusive focus of a test is on comprehending continuous prose text, what can be said about mastering sets of component sub-skills which are prominent features in many reading instruction programs? And in a related sense, what happens to that comfortable (if specious) dichotomy: reading as decoding versus reading for meaning? This issue sharply puts into focus the question: what is the place of meaning in initial reading instruction? To put it differently, what is the importance of context (any one of several types of context) as opposed to the notion of words-in-isolation in beginning reading instruction?

Once one dwells on a cloze format, the importance of the relationships between children's language development and its use and children's reading and learning to read became more directly apparent to these teachers. From even the simplest considerations of syntactic and semantic constraints in oral or written language, to the most careful considerations regarding test format, potentials and limitations, the participants developed an appreciation for the complexities involved in

gaining helpful insight into the nature of information-processing.

Establishing what is the unit of meaning with a test instrument is an important consideration in any discussion of reading. Any outcome test which asks students to read and comprehend connected prose is not emphasizing the importance of phoneme-grapheme correspondence, or the word, or even the sentence. Rather, this choice of connected prose emphasizes the importance of gaining information both prior to, and following, the deletions--all the while emphasizing the need to enhance children's abilities to integrate meaning across sentences. The teachers concluded that such a format evaluates extended meaning of prose text.

The notion of difficulty in reading is normally linked to the concept of appropriateness of reading materials. The perennial questions raised by examining and responding to prose passages include "What is difficult reading?" "For Whom?" And, quite possibly, the question "How difficult should material be to still allow for student comprehension?" With questions such as these in mind, the teachers rapidly moved from a discussion of issues relating to research and teaching to questions of policy--perhaps some of the most important issues with which teachers ought to concern themselves (Farr, 1977).

In sum, for the teacher participating in this program, reviewing and analyzing a test provided a realistic opportunity for reflection on the nature of processes of reading and learning to read. Reading tests seem to be unequal in their concern

for what is being measured. Very few, if any, currently available tests offer explicit or operational (to say nothing of defensible) definitions of reading comprehension. Most tests do not easily lead to the recognition, much less appreciation, of the relationship between the degrees of difficulty of a test--or levels of readability--and properties of language, to name only a few important variables. Moreover, there is little evidence that many reading tests take into account issues surrounding the text-dependent nature of test items as opposed to the interactive nature of reading.

Guided examination of even a few of the major characteristics of one test was seen as an opporunity for teachers to consider alternative conceptualizations of the reading act--most particularly, reading with comprehension. Additionally, this approach provided opportunity to increase teacher's knowledge of the structure of what they are teaching, and why, all of which would have a considerable impact on reading instruction.

Curricular Implications

The general question posed to the participating teachers was "What curriculum changes, if any, might be anticipated from the introduction of a structured cloze test as a State assessment instrument?" If there are anticipated changes, what materials should be prepared to support classroom activities?

Some of the following are implications and suggestions recognized by the teachers while others were introduced by the authors acting as inservice facilitators.

Most reading activities in the middle and later grades are concerned with concept attainment. Klausmier (1978) reported the need for three types of analyses when discussing concept attainment: content analysis, behavioral analysis and instructional analysis. He suggested the need in instructional analysis to consider elements such as the characteristics of learners, the language functions involved, types of material, task requirements and the amount of guidance required from the instructor.

Much recent literature support the need for a more active processing of textual material, encouraging readers to interact with the material. Chall (1977), for example concluded that one possible factor contributing to declining SAT scores in general, was the lack of student interaction with instructional material beyond the level of checking, circling or underlining as the instructional task.

Two language related strategies seem to categorize mature reading performance as described by Gibson and Levin (1975): selecting critical language features by filtering out redundancies; and recognizing critical relationships operating within a language sample.

The format of a language centered test encourages students to apply an array of language skills developed through experience and instruction such as recognizing organization patterns, applying context cues, expanding memory load and recognizing redundancies. Marilyn Adams (1977) highlighted the functioning of semantic intersection and syntax as related to processing strategies. In addition, the interdependence and simultaneous operation of "bottom-up and top-down" processing of automatic language skills

received attention in her report.

A review of general language operation by experienced teachers might be the initial thrust in analyzing the avenues for curriculum revision. Bower (1968) began by suggesting an analysis of phrase structures within sentences, and concluded with an analysis of the semantic elements operating at the paragraph level. Recent research addressing language processing strategies (Anderson, 1977; Marshall and Glock, 1978) reflect a semantic analysis. Theorists, such as Frederiksen (1974), have identified four units for language study: concepts (content); relations (two or more concepts); implications (two or more propositions); and finally semantic structure. All items within this assending order of studies appear useful in pursuing the questions of how readers extract particular types of information, of how the readers organize semantic information obtained from text material, and of how prior experience with language cues and topics influence processing strategies. For their study, Marshall and Glock (1978) attempted to combine elements from Frederikson's (1974) four language units with Grime's (1975) three types of organizations or structures within passages, content structure, cohesion structures and staging structure.

The teachers involved in this staff development program agreed that classroom staff faces the task of translating this theoretical base for language into instructional techniques. One obvious starting point is to generate a language centered curriculum which focuses on the characteristics of language, readers and text. The language features of how syntax and semantics interface may be addressed by changes in word order, the

addition of words, phrases and clauses and the use of discourse markers.

Instructional activities which appeared critical to the in-service participants were those which might influence global reading measures. Therefore instructional strategies should be developed at the word, proposition and multiple sentence levels (Pearson, 1977). At the word level, general vocabulary development shoud include strategies with synonyms, classifications, connotative and denotative meanings, and multiple meanings. Additional strategies of paraphrasing, figurative language and context analysis have been advocated at the proposition level (Gibson and Levin, 1975). The importance of discourse markers should not be overlooked in the comprehension of multiple sentences, especially when passages have been subjected to a cloze procedure (Richards, 1975-76; Whalmsely, 1976). In general, instruction should be directed to at least the following language cue systems (Doake, 1976):

1. semantic meanings of words;
2. word affixes influencing the semantic meanings and syntactic functions of words;
3. phrases and clause deep structures as utilized in sentences;
4. surface and deep semantic structures governing changes in word meanings;
5. identification of antecedents of pronouns, proverbs, and anaphora;
6. structures included in paragraphs and structures modifying sentence, paragraph and section meanings.

Pearson (1974-75) hypothesized that readers engage in a synthesizing process, linking together structural components. With this in mind, the teachers suggested the process of categorizing words and sentences, identifying key words (Fitzgerald and Connors, 1977), summarizing, outlining and structured overviews (Hansell, 1978) as necessary skills since they clearly emphasizes organizational skills reflected in active language processing at the instructional level. Sullivan (1978) reviewed the reading strategies of good and poor readers and reported the relative importance of qualifying terms, word clusters, superordinate relationships with propositions. She advocated the development of selective comprehension strategies of paraphrasing, summarizing, identifying critical word combinations, searching for supportive examples, and making deductions.

In sum, many teachers receiving inservice training concluded that the introduction of a comprehension measure with a meaning base would influence classroom curriculum. A more language-centered, active processing mode of instruction would appear more responsive to the task defined by a cloze test instrument. Much new information has been generated over the past decade concerning our understanding of the comprehension process, but much still remains unclear. For these teachers, what was clear was that the instruction within the classroom has not kept pace with this new information. The introduction of a new testing instrument may help to reduce this gap when teachers are encouraged to analyze test instruments for ways in which it reflects the reading process and potential curriculum implications.

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